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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,450	12/16/2005	Akira Yoda	58343US005	3798

32692 7590 06/25/2007  
3M INNOVATIVE PROPERTIES COMPANY  
PO BOX 33427  
ST. PAUL, MN 55133-3427

EXAMINER
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GREEN, TRACIE Y

ART UNIT	PAPER NUMBER
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2809

NOTIFICATION DATE	DELIVERY MODE
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06/25/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com  
LegalDocketing@mmm.com

## Office Action Summary

Application No.

10/538,450

Applicant(s)

YODA ET AL.

Examiner

Tracie Y. Green

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 06/10/2005.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Park et al (PG-PUB, U.S. 2003/0044727)

Park et al discloses a flexible mold comprising:

**Regarding claim 1**, a support and a molding layer disposed on said support (Paragraph 30 lines 1-5 and Figure 6a and 6c, #60 and 61).

**Regarding claim 2**, wherein said support and said molding layer are transparent, (Paragraph 49 lines 105)

**Regarding claim 3**, layer is equipped in said rib region with a portion necessary for forming a thin film made of the same material as that of said ribs between adjacent ribs, (Paragraph 34 lines 1-5)

**Regarding claim 20,**

- A) A PDP back surface plate comprising a substrate (Paragraph 34, lines 1-5)

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**B)** Having formed thereon a rib pattern layer having a rib region having ribs having a predetermined shape and a predetermined size and a non-rib region occupying at least a part of a peripheral portion of said rib region, wherein a thin film made of the same material as that of said ribs is formed to a predetermined thickness in said non-rib region. (Paragraph 30 lines 1-10)

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al in view Chiu et al.

Park et al's invention discloses all of the claimed limitations from above except for wherein inclination is applied to a terminal portion of each of said groove patterns in said molding layer; and wherein said molding layer further includes alignment marks applied to said rib non-formation portion.

However, Chiu et al teaches:

**Regarding claim 4**, wherein inclination is applied to a terminal portion of each of said groove patterns in said molding layer (Fig 2 and Fig 4, Paragraph 37, lines

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1-10)

**Regarding claim 6**, wherein said molding layer further includes alignment marks applied to said rib non-formation portion (Paragraph 48, lines 1-10)

5. Given the teachings of Chiu et al it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the flexible mold of Park et al wherein inclination is applied to a terminal portion of each of said groove patterns in said molding layer; and wherein said molding layer further includes alignment marks applied to said rib non-formation portion.

Doing so would provide a mold that can form barrier ribs with uniform heights even in the repeated manufacturing process.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al in view of Chiu et al as applied to claim(s) above, and further in view of Kim et al (PG-Pub, U.S. 2003/0134506 A1)

Park et al's invention, as modified by Chiu et al, discloses all of the claimed limitations from above except for wherein comers are removed from an upper end portion of a sidewall of said groove pattern

However, Kim et al teaches,

**Regarding claim 5**, wherein comers are removed from an upper end portion of a sidewall of said groove pattern (Paragraph 104, lines 1-5)

7. Given the teachings of Kim et al it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the flexible mold of Park et al with wherein comers are removed from an upper end portion of a sidewall of said groove pattern.

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Doing so would provide a device with improved illumination.

### ***Conclusion***

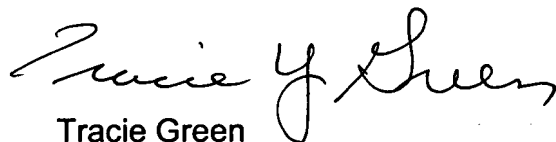
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are disclosed in form 892 of this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracie Y. Green whose telephone number is 571/270-3104. The examiner can normally be reached on Monday-Thursday-7:30am-5:00pm.

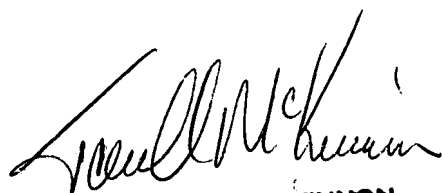
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrell McKinnon can be reached on 571/272-4797. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in cursive script, appearing to read "Tracie Green".

Tracie Green  
June 14, 2007

A handwritten signature in cursive script, appearing to read "Terrell L. McKinnon".

**TERRELL L. MCKINNON**  
**SUPERVISORY PATENT EXAMINER**